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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/560,217	04/28/2000	Miska Hannuksela	442-009400-US(PAR)	3689

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EXAMINER	
WILSON, ROBERT W	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/560,217	HANNUKSELA, MISKA	
	Examiner	Art Unit	
	Robert W Wilson	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *6/24/04*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.0 The application of Hannuksela entitled DATA TRANSMISSION filed on 4/28/2000 and amended on 6/24/04 and requesting foreign priority based upon FINLAND 990970 04/29/1999 was examined. Claims 27-54 are pending.

Claim Rejections - 35 USC § 103

2.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.0 **Claims 27-38, 40-51, & 53-54** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyasak et. al. (U.S. Patent No.: 5,991,503)

Referring to **Claim 27**, Miyasak teaches: A server for transmitting a data signal having a sequence of data units in a predetermined order over a transmission link (A server is shown in Figs 3, 10, 11, & 12 or per col. 1 line 19 which transmits packets or data units in a normal reproducing or predetermined order over a transmission link)

The data units being sent in an order determined by their relative importance rather than their predetermined order (When SPECIAL REPRODUCTION is selected the data units are sent in order of their importance as compared to when NORMAL REPRODUCING is selected the data units are sent in order of time sequence or predetermined order per Figs 3, 10, 11, & 12 or per col. 4 line 48-col. 7 line 27 and col. 9 line 62-col. 13 line 14)

In which the data units are intended to be played back at scheduled playback times and are sent in order determined by their relative importance in providing uninterrupted playback to increase the likelihood of more important of the data units being received before their schedule play back times (When SPECIAL REPRODUCTION is selected the data units are sent in order of their importance as compared to when NORMAL REPRODUCING is selected the data units are sent in order of time sequence or predetermined order totally guaranteeing that data units are received in an uninterrupted order per Figs 3, 10, 11, & 12 or per col. 4 line 48-col. 7 line 27 and col. 9 line 62-col. 13 line 14.)

Miyasak does not expressly call for: sending data determined by their relative importance rather than predetermined order but teaches sending data units in SPECIAL REPRODUCTION order instead of NORMAL REPRODUCING order.

It would have been obvious to one of ordinary skill in the art at the time of the invention that SPECIAL REPRODUCTION order performs the same function as sending data determined by their relative importance rather than a predetermined order.

In Addition Miyasak teaches:

Regarding **Claim 28**, in which the data units represent a base layer and at least one enhancement layer (The primary reference teaches MPEG per Abstract. The examiner takes official notice that creation of an MPEG with a base layer and an enhancement layer is well known in the art because they layers are specified in the MPEG standard per U.S. Patent No.: 6,788,740 per col. 1 lines 29-67. It would have been obvious to one or ordinary skill in the art to add an enhancement and base layer in order to be standards compliant)

Regarding **Claim 29**, comprising means to calculate the pre-calculated playback times (30 per Fig 10 has the means)

Regarding **Claim 30**, in which the data signal is scalable (The primary reference teaches MPEG per Abstract. The examiner takes official notice that creation of an MPEG with scalable video is well known in the art because they layers are specified in the MPEG standard per U.S. Patent No.: 6,788,740 per col. 1 lines 29-67. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a capability to scale video in order to be standards compliant.)

Regarding **Claim 31**, in which the signal is scalable in a domain selected from a group consisting of the temporal, spatial, the spectral and SNR domain. (The primary reference teaches MPEG per Abstract. The examiner takes official notice that creation of an MPEG with which provides temporal, spatial, and SNR scalability or spectral is well known in the art because this capability is specified in the MPEG standard per U.S. Patent No.: 6,788,740 per col. 1 lines 29-67. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide temporal, spatial, and SNR scalability or spectral processing in order to be standards compliant.

Regarding **Claim 32**, which comprises an editor for providing the data signal (20 per Fig 3 or editor)

Regarding **Claim 33**, in which the data signal represents a sequence of pictures to product a moving image (MPEG per col. 4 lines 49-67)

Regarding **Claim 34**, in which the data signal represents a video sequence (PICTURE DATA per Fig 9)

Regarding **Claim 35**, in which the data signal comprises multimedia data (The signal has Picture and sound per Fig PICTURE DECODING UNIT and SOUND DECODING UNIT per Fig 11 or SOUND DATA and PICTURE DATA per Fig 9 or multimedia)

Regarding **Claim 36**, which comprises re-ordering means to order the data units into the order determined by their relative importance (30 per Fig 10)

Regarding **Claim 37**, which comprises transmitting means to transmit the re-ordered data units (30 per Fig 10)

Referring to **Claim 38**, Miyasak teaches: A data transmission system for transmitting a data signal having a sequence of data units in a predetermined order over a transmission link between a data source and a data sink (Figs 3, 10, 11, & 12 or per col. 4 line 48-col. 7 line 27 and col. 9 line 62-col. 13 line 14 shows a data transmission system between PICTURE DATA per Fig 3 or data source which provides PICTURE DECODING output of Fig 12, SOUND DECODING per Fig 11 output to the data sink)

The system comprising re-ordering means to order the data units into an order determined by their relative importance rather than predetermined order and transmitting means to transmit the re-ordered data units (30 per Fig 10 outputs packet in SPECIAL REPRODUCTION or order of relative importance and 30 per Fig 10 has the ability to transmit reordered packets)

The re-ordering means being arranged to re-order the data units according to pre-calculated scheduled playback times so that those data units that are necessary to provided uninterrupted playback are intended to be received before their pre-calculated scheduled playback times (30 per Fig 10 outputs packet in SPECIAL REPRODUCTION or order of relative importance consequently 30 per Fig 10 has the ability to jump back as well as jump forward thereby providing re-ordering so as to send packets before their pre-calculated playback times)

Miyasak does not expressly call for: sending data determined by their relative importance rather than predetermined order but teaches sending data units in SPECIAL REPRODUCTION order instead of NORMAL REPRODUCING order per col. 4 line 48-col. 7 line 27 and col. 9 line 62-col. 13 line 14)

It would have been obvious to one of ordinary skill in the art at the time of the invention that SPECIAL REPRODUCTION processing performs the same function as sending data determined by their relative importance rather than a predetermined order.

In Addition Miyasak teaches:

Regarding **Claim 40,** in which the source is a server (Fig 3 is the server)

Regarding **Claim 41,** in which the source is an editor (20 per Fig 3 performs editing)

Regarding **Claim 42**, in which the sink is a client (The output of PICTURE DEOCDING UNIT and SOUND DECODING UNIT is provided in order for one to see the picture and hear the sound. It would have been obvious to one of ordinary skill in the art at the time of the invention that the picture and sound would be provided to a client)

Regarding **Claim 43**, in which the sink is mobile terminal (The primary reference teaches MPEG per Abstract. The examiner takes official notice that a mobile terminal being utilized to receive MPEGs is well known in the art because they layers are specified in the MPEG standard per U.S. Patent No.: 6,788,740 per col. 2 lines 17-45. It would have been obvious to one or ordinary skill in the art to add an mobile telephone or mobile terminal in order to be standards compliant.)

Regarding **Claim 44**, in which the sink is a mobile telephone (The primary reference teaches MPEG per Abstract. The examiner takes official notice that a mobile terminal being utilized to receive MPEGs is well known in the art because they layers are specified in the MPEG standard per U.S. Patent No.: 6,788,740 per col. 2 lines 17-45. It would have been obvious to one or ordinary skill in the art to add an mobile telephone or mobile terminal in order to be standards compliant.)

Regarding **Claim 45**, in which means are provided to check the progress of transmission and to change the order being used to one better suited to available bandwidth (The applicant broadly claims "check the progress of transmission and to change the order being used to better suited to available bandwidth". 50 per Fig 15 has the means to determine if a DECODING ERROR occurs and then sending a command which would change the order to better suit the available bandwidth)

Referring to **Claim 46**, Miyasak teaches: A method of transmitting a data signal having a sequence of data units in a predetermined order over a transmission link between a data source and a data sink (Figs 3, 10, 11, & 12 or per col. 4 line 48-col. 7 line 27 and col. 9 line 62-col. 13 line 14 shows a method of transmitting between PICTURE DATA per Fig 3 or data source and outputting PICTURE DECODING output per Fig 12 & SOUND DECODING output per Fig 11 to the data sink) the method comprising the steps of:

Calculating scheduled playback times for the dale units and re-ordering the data units into an order determined by their relative importance rather than their predetermined order so that those data units that are necessary to provide uninterrupted playback are intended to be received before their pre-calculated schedule playback times transmitting the re-ordered data units (30 per Fig 10 calculated the order for data units in NORMAL REPRODUCTION or scheduled playback and upon receiving a SPECIAL REPRODUCTION determined the order of data units in order that they be received before their pre-calculated schedule playback times thus determining which data units should be sent in order their importance relative importance which results in uninterrupted playback)

Miyasak does not expressly call for: Calculating scheduled playback times for the dale units and re-ordering the data units into an order determined by their relative importance but teaches SPECIAL REPRODUCTION processing

It would have been obvious to one of ordinary skill in the art at the time of the invention that SPECIAL REPRODUCTION processing performs the same function as calculating scheduled play back times for data units and re-ordering the data units into order determined by their relative importance .

In Addition Miyasak teaches:

Regarding **Claim 47**, in which the data units are returned to their original sequence once they have been transmitted over the transmission link (By changing the selection from SPECIAL REPRODUCTION to NORMAL REPRODUCTION the sequence can be changed back to the original sequence per Figs 3, 10, 11, & 12 or per col. 4 line 48-col. 7 line 27 and col. 9 line 62-col. 13 line 14)

Regarding **Claim 48,** in which the progress of transmission is checked and the order being used is changed to one better suited to available bandwidth (The client can review the data being sent and change the selection from SPECIAL REPRODUCTION to NORMAL REPRODUCTION the sequence can be changed back to the original sequence per Figs 3, 10, 11, & 12 or per col. 4 line 48-col. 7 line 27 and col. 9 line 62-col. 13 line 14 if they are unhappy with the progress of the data and thereby make a selection that is better suited to the available bandwidth)

Referring to **Claim 49**, It is within the level of one skilled in the art to implement the functions of Miyaska defined in Claim 38 in software. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer readable medium so that the program could be executed on a processor.

In Addition Miyasak teaches:

Regarding **Claim 50,** comprising a server (Fig 3 is the server)

Regarding **Claim 51,** comprising an editor for providing a scalable data signal (20 per Fig 3 performs editing wherein a video signal is scalable)

Referring to **Claim 53**, Miyasak teaches: A data signal having a sequence of data units for transmission over a transmission link between a data source and data sink (Figs 3, 10, 11, & 12 or per col. 4 line 48-col. 7 line 27 and col. 9 line 62-col. 13 line 14 shows a method of transmitting a data signal between PICTURE DATA per Fig 3 or data source and outputting PICTURE DECODING output per Fig 12 & SOUND DECODING output per Fig 11 to the data sink)

The data units being intended to be played back at pre-calculated scheduled playback times and being sent in an order determined by their relative importance so that those data units that are necessary to provide uninterrupted playback are intended to be received before their pre-calculated scheduled playback times (The data units are send in NORMAL REPRODUCTION sequence or pre-calculated scheduled playback time. When SPECIAL REPRODUCTION is selected the data units can be jumped forward or jumped backward of their NORMAL REPRODUCTION order and are sent in order of their relative importance which results in them being received before their pre-calculated scheduled playback times)

Miyasak does not expressly call for: data units being intended to be played back at pre-calculated scheduled play back times and being sent in an order determined by their relative importance but teaches sending data units in NORMAL REPRODUCTION unless SPECIAL REPRODUCTION is selected.

It would have been obvious to one of ordinary skill in the art at the time of the invention that NORMAL REPRODUCTION performs the same function as played back at pre-scheduled playback times and SPECIAL REPRODUCTION order performs the same function as sending data determined by their relative importance rather than a pre-scheduled order.

Referring to **Claim 54,** Miyasak teaches: A re-ordering device for re-ordering a data signal for transmission over a transmission link (Figs 3, 10, 11, & 12 show a re-ordering device)

Between a data source and a data sink (Figs 3, 10, 11, & 12 or per col. 4 line 48-col. 7 line 27 and col. 9 line 62-col. 13 line 14 shows re-ordering device between PICTURE DATA per Fig 3 or data source and outputting PICTURE DECODING output per Fig 12 & SOUND DECODING output per Fig 11 to the data sink)

The data units being intended to be played back at scheduled playback times (The data units are intended to be played back at NORMAL REPRODUCTION or scheduled playback times)

The re-ordering device being arranged to re-order the data units according to pre-calculated scheduled playback times into an order determined by their relative importance rather than their predetermined order so that those data units that are necessary to provide uninterrupted playback are intended to be received before their pre-calculated schedule playback times (Figs 3, 10, 11, &12 show a re-ordering device that reorders the data units from NORMAL playback or pre-calculated scheduled playback times. When SPECIAL REPRODUCTION is selected the device sends the data units in order of their relative importance rather than in their predetermined order which results in uninterrupted playback before their pre-calculated scheduled playback times)

Miyasak does not expressly call for: data units being intended to be played back at pre-calculated scheduled play back times and being sent in an order determined by their relative importance but teaches sending data units in NORMAL REPRODUCTION unless SPECIAL REPRODUCTION is selected.

It would have been obvious to one of ordinary skill in the art at the time of the invention that NORMAL REPRODUCTION performs the same function as played back at pre-scheduled playback times and SPECIAL REPRODUCTION order performs the same function as sending data determined by their relative importance rather than a pre-scheduled order.

Claim Rejections - 35 USC § 112

4.0 The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5.0 **Claims 27-37** are rejected relative to 112/1st paragraph because the breadth of the claim cannot be assessed.

Referring to Claim 27, Claim 27 is written an apparatus claim which is written in the form of single means claim; consequently, the breadth of the claim cannot be assessed.

Claim Rejections - 35 USC § 112

6.0 The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 39 & 52 are rejected relative to 112/2nd paragraph because the metes and bounds of the claims cannot be assessed.

Referring to **Claim 39,** What is meant by "the base layer of a particular data unit has a greater safety time than an enhancement layer of the particular data unit"? Is the applicant trying to say that data units are being sent by both the base layer and enhancement layer and the duration to receive an data unit from the base unit is "safer"?

Referring to **Claim 52**, What is meant by "comprising re-ordering means for providing the of each of the data units with different safety times"? What are safety time? times"?

Response to Amendment

7.0 Applicant's arguments with respect to claims 27-54 have been considered but are moot in view of the new ground(s) of rejection.

8.0 The examiner respectively disagrees that the new reference Miyasaka (U.S. Patent No.: 5,991,503) does not disclose the new limitations cited by the applicant. Please review above rejection for details.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

9.0 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571/272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert W. Wilson

Robert W Wilson
Examiner
Art Unit 2661

RWW
September 20, 2004

KENNETH VANDERPUYE
PRIMARY EXAMINER